DOCKET NO: 249315US6DIV

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF	:
KEIJIRO TAKE	: EXAMINER:
SERIAL NO: 10/796,011	:
FILED: MARCH 10, 2004	: GROUP ART UNIT: 2661
FOR: A METHOD AND APPARATUS FOR ASSIGNING CODES	:

PETITION TO MAKE SPECIAL UNDER M.P.E.P. § 708.02(VIII)

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

I. Basis for the Petition

Pursuant to MPEP § 708.02(VIII) (8th ed. 2001), Applicants hereby petition for a special status for this application.

II. Requirements for Granting Special Status

MPEP § 708.02(VIII) provides five requirements for a grant of special status. The following subsections show that each of these five requirements is met.

A. Submit Petition and Fee: § 708.02(VIII)(A)

This petition is accompanied by the fee set forth in 37 CFR § 1.17(h).

B. Agree to an Election Without Traverse: § 708.02(VIII)(B)

Applicants submit that all pending claims are directed to a single, patentable invention. However, should the Office determine that all the claims presented are not directed to a single invention, Applicants agree to elect independent Claim 3, and all claims dependent therefrom.

C. State that a Pre-examination Search Was Made:

§ 708.02(VIII)(C)

The present application is a divisional of pending Application Serial No. 10/013,451, which is a divisional of Application Ser. No. 09/156,703 that matured into U.S. Patent 6,477,158. Each of the references cited in the prosecution of these earlier filed applications are cited in either the original Information Disclosure Sheet (IDS) filed with this application or in subsequent IDS forms.

In addition, search reports from corresponding European patent applications (EP 04004248.3-2415, EP 04004249.1-2415, EP 04004250.9-2415, EP 04004251.7-2415, and EP 04004252.5-2415) have been filed via IDS as well. All references cited in these European search reports have been previously cited in the parent and grandparent applications of the present application.

D. Submit a Copy of the Most Relevant References:

§ 708.02(VIII)(D)

Since the present application is a divisional of Application Serial No. 10/013,451, all of the references considered in the parent application, as well as those cited in grandparent Application Ser. No. 09/156,703, are deemed to be of record in the present application. Also, an original and a supplemental Information Disclosure Statement (IDS) have been submitted in association with this application. Accordingly, the references deemed most relevant to the present claims have been submitted and are of record.

E. Submit a Detailed Discussion of the References, Pointing Out How the Claimed Subject Matter is Patentable Over the References: § 708.02(VIII)(E)

Each of the independent claims includes features not taught or suggested by the references deemed most relevant to the claims.

Independent Claim 3 is directed to method of a base station controlling apparatus used for a radio communication system employing CDMA (Code Division Multiple Access) for radio access with a plurality of mobile stations and providing multi-rate transmission. The method includes transmitting code information by message to one of the plurality of base stations. The code information is for switching a first code being used to a second code, so as to enable the one of the plurality of base stations to transmit timing information by message and to switch the first code to the second code based on the code information transmitted. The switching at the one of the plurality of base stations is conducted in synchronization with the switching of the first code to the second code at the one of the plurality of mobile stations. The one of the plurality of mobile stations switches the first code to the second code based on the timing information transmitted by the one of the plurality of base stations. The timing information includes an integer representing a frame at which the first code is switched to the second code. Independent Claim 5 is directed to an apparatus corresponding to the method recited in Claim 3. Independent Claims 4 and 6 are directed to alternative embodiments of Applicants' inventions of Claims 3 and 5, including a method and corresponding system where timing information is recited as regarding timing of switching the first code to the second code.

Below, as required by MPEP 708.02, each of the references deemed most relevant to the claims is discussed in light of the inventive feature believed most pertinent to the reference for the purpose of this petition.

Consistent with the search conducted by the Applicants, as well as references of record in this case, Applicants respectfully submit that the claims of the Application patentably distinguish over all of the references of record, with reasons for patentability being provided below.

Applicants' Claim 3 recites, *inter alia*:

"...transmitting code information by message to one of the plurality of base stations, said code information for switching a first code being used to a second code, so as to enable the one of the plurality of base stations to transmit timing information by message and to switch the first code to the second code based on the code information transmitted, the switching at the one of the plurality of base stations conducted in synchronization with the switching of the first code to the second code at the one of the plurality of mobile stations, the one of the plurality of mobile stations switching the first code to the second code based on the timing information transmitted by the one of the plurality of base stations, wherein

the timing information includes an integer representing a frame at which the first code is switched to the second code."

By way of background, it is known to use tree structured orthogonal multi-spreading factor sequences in CDMA system. However, in conventional systems, when a code has been already assigned (in use), it is impossible to assign all the codes higher in the tree. This causes a problem that the channel utilization is deteriorated. It is an object of the present invention to utilize all the system (all the branches) of the tree structure for assigning a code to be responsive to a new call, in order to enhance the channel utilization.[1]

U.S. Patent No. 6,078,572 to Tanno et al., hereinafter Tanno, corresponding to EP 0765096 cited as an X reference in the above mentioned European Search Reports, discloses a base station configured to assign a spreading code to a mobile station in response to a request to transmit information.[2] However, Tanno does not disclose or suggest transmitting code information by message from a base station controller to one of the plurality of base stations so a base station and a mobile station can switch codes in synchronism as recited in Applicants' Claims 3-6.

U.S. Patent No. 5,740,168 to Nakamura et al., hereinafter Nakamura, cited by the Examiner in grandparent Application Ser. No. 09/156,703, discloses reassigning spreading codes to a mobile in response to a detected signal degradation.[3] The reassignment is

[1] Specification, paragraphs [0008-10].
[2] Tanno, column 7, line 38- column 8, line 62; see also column 9, lines 48-49.
[3] Nakamura, column 6, lines 22-34.

conducted in accordance with switching timing transmitted from the mobile.[4] That is, Nakamura transmits or receives Layer 1 bit data, where only 1 bit in the unique word per frame is used as Layer 1 data. Layer 1 does not include the concept of a "message" as recited in Applicants' independent Claims 3-6 because Layer 1 is just a physical sequence of bits. In Applicants' claimed invention, timing information is transmitted via Layer 3 messages. Furthermore, Nakamura does not disclose or suggest 'timing information including an integer representing a frame at which the first code is switched to the second code' as recited in Applicants' Claims 3 and 5.

U.S. Patent No. 5,751,761 to Gilhousen, cited by the Examiner in grandparent Application Ser. No. 09/156,703, discloses assigning orthogonal Walsh synchronization codes in a CDMA system.[5] However, Gilhousen does not disclose or suggest reassigning codes, as recited in Applicants' Claims 3-6.

U.S. Patent No. 6,084,844 to Adachi, corresponding to EP 0814581 cited as an A reference in the above mentioned European Search Reports, discloses assigning spreading codes from a tree-structured code bank, and reassigning these spreading codes if data transmission rates fall below a predetermined threshold.[6] However, Adachi does not disclose or suggest transmitting code information by message from a base station controller to one of the plurality of base stations so a base station and a mobile station can switch codes in synchronism as recited in Applicants' Claims 3-6.

Applicants therefore submit that none of the references of record, neither alone or in combination, disclose nor suggest the invention recited in Claims 3-6.

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[4] Nakamura, column 6, line 50 – column 7, line 3.
[5] Gilhousen, column 12, lines 41-65.
[6] Adachi, column 5, lines 39-53.

III. Conclusion

The Applicants believe that the above provides information required for a favorable petition to make special. Therefore, Applicants respectfully request that this application be advanced out of turn for examination.

Respectfully submitted,

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